



Bob Holden Governor Stephen M. Mahfood Director

# DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY  
P.O. Box 176 Jefferson City MO 65102 0176

February 1, 2002

Mr. Tony Petruska  
U.S. Environmental Protection Agency  
901 N. 5th St.  
Kansas City, KS 66101

4717  
Site Herculaneum Road  
ID # MO-CV-2-2da373  
Break 2.0  
Other 2-1-02  
Wm

**RECEIVED**

FEB 01, 2002

**DIVISION**

Dear Mr. Petruska:

The department has reviewed the Long-Term Monitoring and Maintenance Plan Lead Deposition. My comments are provided below and I have enclosed comments from our Air Pollution Control Program.

In general, the plan to sample locations where soil has been replaced to monitor increases in lead concentration through time is appropriate. The specific design proposed by Doe Run has been rendered obsolete due to expedited sampling already conducted in Herculaneum. However, an analysis of recently measured soil concentrations at residential properties will give an estimate of historic recontamination rates. This information may be useful in estimating post-control recontamination rates projected into the future.

It is my understanding that EPA plans to conduct recontamination sampling at various locations around Herculaneum. That sampling has been described as a composite of the top one-inch of soil in a residential yard collected monthly from the same location. I support that approach. It would be helpful if those locations included a range of distance from the facility and some locations near the haul roads and some removed from the haul roads.

In addition, I suggest that XRF readings be taken from several locations from the exact same spot on a monthly basis to provide an additional check. My concern is that the inherent heterogeneity of soil concentrations may confound the recontamination analysis. The XRF would be recommended as an additional check because it is a non-destructive sampling technique that would not remove lead from the area being analyzed. Therefore, the exact same spot could be re-sampled through time.

Doe Run has included "specific gravity" measurements in their sampling protocol. I agree that this measurement should be included. However, the correct term for soil density is "bulk density" and it is measured in grams per cubic centimeter, not "grams per square centimeter" as mentioned in Section C of the plan.

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SUPERFUND RECORDS

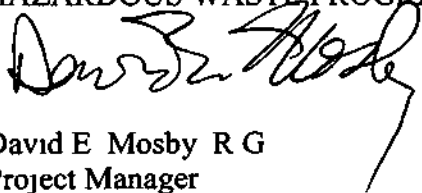
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Modeled deposition rates can then be compared to these calculated based on soil sample results. After the model is validated, the information can be used to determine geographic areas of concern. Please refer to the enclosed memorandum from our Air Pollution Control Program for comments on the modeling.

If you have any questions, I can be reached at (573) 751-1288.

Sincerely,

HAZARDOUS WASTE PROGRAM



David E Mosby R G  
Project Manager

DM kc

Enclosure

c Bruce Morrison, EPA, Superfund